

REMARKS

In the Office Action dated April 2, 2008, claims 1-7 and 11 were rejected under 35 U.S.C. §112, second paragraph as being indefinite.

The basis for rejecting claims 1 and 11 under §112, second paragraph was a lack of antecedent basis for certain terms in those claims, and this antecedent basis has now been provided.

A further basis for rejecting claim 1 under §112, second paragraph was because the Examiner stated that the term "router" is used in claim 1 has meaning a "data link or communication channel," while the Examiner stated that the accepted meaning of that term is a device in a network that handles message transfers between computers. The Examiner also stated the accepted meaning is that a router receives information and forwards it based on the route that the router determines to be the most efficient at the time of transfer.

This basis for rejecting claim 1 is respectfully traversed. Applicant submits the Examiner has selected one very specific and restrictive meaning of the term "router," and Applicant does not agree that this very specific meaning is the generally accepted meaning of the term "router." Applicant submits the generally accepted meaning is, the term is defined and used in the paragraph beginning at page 9, line 3 in the present specification, is simply a device that routes electronic messages along a particular communication path. The term "router" as used in claim 1 of the present application, as well as in the other claims, has a scope commensurate with this general meaning, since the router is described in the claims as connecting the external device to the remote center in order to allow remote servicing of the external

device through the medical imaging apparatus., i.e., through the remote access equipment that is already a part of the medical imaging apparatus.

In substantiation of this generally accepted meaning of the term "router," Applicant submits herewith the definition of that term that is provided in the "McGraw-Hill Dictionary of Scientific and Technical Terms" (Attachment "A"). As stated therein, a router simply means a device that selects an appropriate pathway for a message and routes the message accordingly. This is the manner that the term is being used in the claims of the present application, and is the manner that the term is described in the present specification.

The Examiner also noted that claims 1-7 were originally stated, in the preamble, to refer to an apparatus, but the Examiner stated it appears that a system is being claimed. Those claims have been amended accordingly to refer to a medical system in the preamble.

Claims 1, 8 and 11 were rejected under 35 U.S.C. §102(b) as being anticipated by Shiraishi. This rejection is respectfully traversed for the following reasons.

The Shiraishi reference discloses an x-ray computed tomography system that can be placed in communication with a remote location via a network. The Examiner stated the Shiraishi reference discloses an "external device" as set forth in claim 1, the Examiner citing the gantry apparatus 103 in Shiraishi for this purpose. Applicant submits that those of ordinary skill in the field of medical imaging, and in the field of computed tomography in particular, would not consider the gantry of a computed tomography apparatus as being a "external device" in the sense of the gantry being external to the computed tomography apparatus. The gantry is the core component

of a computed tomography system, and is a very heavy, bulky, permanently installed component of the system. Moreover, the gantry is not "used with" a computed tomography apparatus, but us an essential, basic component of the apparatus itself.

In the subject matter disclosed and claimed in the present application, an external device is claimed that is used with (as originally claimed) an installed medical system. The claims have been amended throughout to instead refer to a medical imaging apparatus, and this apparatus has been defined as being comprised of a plurality of permanently installed components. The independent claims have been amended to explicitly state that the external device is separate from these permanently installed components and, as noted above, the original language of the independent claims already stated that the external device is used in combination with the installed medical system. This language in the amended claims now states that the external device is usable in combination with the installed medical imaging apparatus. This makes clear that the external device is not, and cannot be, one of the permanently installed components of the installed medical imaging apparatus itself.

In accordance with the present invention, the external device has its own external device interface. When the external device is used in combination with the installed medical imaging apparatus, the external device interface is in communication with the remote access interface that is a part of the installed medical imaging apparatus. This allows the external device to be serviced, from a remote location form which servicing normally takes place for the installed medical imaging apparatus itself. The servicing of the external device takes place through the installed medical imaging apparatus.

Since the Shiraishi reference discloses only communication between the actual, permanently installed components of the computed tomography apparatus itself, with a remote location (vendor site), the Shiraishi reference does not disclose all of the elements of claim 1 as arranged and operating in that claim, and thus does not anticipate claim 1.

Claims 8 and 11 have been amended in a manner similar to the amendments to claim 1, and therefore neither of claims 8 or 11 is anticipated by Shiraishi, for the same reasons discussed above in connection with claim 1.

Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Shiraishi in view of Fratt. Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Shiraishi in view of Bonissone et al. Claims 4 and 5 were rejected under 35 U.S.C. §102(a) as being unpatentable over Shiraishi in view of Bonissone et al., further in view of Dell. Claims 6, 7, 9 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shiraishi in view of Dell.

These rejections are respectfully traversed for the same reasons discussed above on connection with the independent claims. For those reasons, even if the Shiraishi reference were further modified in accordance with the teachings of one or more of the aforementioned secondary references, the subject matter of the aforementioned mentioned claims still would not result.

Lastly, claim 12 was rejected under 35 U.S.C. §103(a) as being unpatentable over Shiraishi. The above arguments with regard to the other independent claims are also applicable to this rejection. There is no teaching, suggestion or motivation that is disclosed in the Shiraishi reference that would cause a person of ordinary skill in the field of servicing medical systems to modify the Shiraishi reference to arrive at

the subject matter of claim 12. In fact, the Shiraishi reference teaches away from the subject matter of claim 12 (as well as the other independent claims) because, as the Examiner has noted, the component that the Examiner as characterized as corresponding to the "external device" in Shiraishi is actually a built-in (permanently installed) component. There is no discussion whatsoever in the Shiraishi reference regarding servicing of a true external component, that is not a permanently installed component of the apparatus

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519.

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**On the cover: Photomicrograph of crystals of vitamin B₁.
(Dennis Kunkel, University of Hawaii)**

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In addition, material has been drawn from the following references: R. E. Huschke, *Glossary of Meteorology*, American Meteorological Society, 1959; *U.S. Air Force Glossary of Standardized Terms*, AF Manual 11-1, vol. 1, 1972; *Communications-Electronics Terminology*, AF Manual 11-1, vol. 3, 1970; W. H. Allen, ed., *Dictionary of Technical Terms for Aerospace Use*, 1st ed., National Aeronautics and Space Administration, 1965; J. M. Gilliland, *Solar-Terrestrial Physics: A Glossary of Terms and Abbreviations*, Royal Aircraft Establishment Technical Report 67158, 1967; *Glossary of Air Traffic Control Terms*, Federal Aviation Agency; *A Glossary of Range Terminology*, White Sands Missile Range, New Mexico, National Bureau of Standards, AD 467-424; *A DOD Glossary of Mapping, Charting and Geodetic Terms*, 1st ed., Department of Defense, 1967; P. W. Thrush, comp. and ed., *A Dictionary of Mining, Mineral, and Related Terms*, Bureau of Mines, 1968; *Nuclear Terms: A Glossary*, 2d ed., Atomic Energy Commission; F. Casey, ed., *Compilation of Terms in Information Sciences Technology*, Federal Council for Science and Technology, 1970; *Glossary of Stinfo Terminology*, Office of Aerospace Research, U.S. Air Force, 1963; *Naval Dictionary of Electronic, Technical, and Imperative Terms*, Bureau of Naval Personnel, 1962; *ADP Glossary*, Department of the Navy, NAVSO P-3097.

**McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS,
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round ligament

round ligament [ANAT] 1. A flattened band extending from the fovea on the head of the femur to attach on either side of the acetabular notch between which it blends with the transverse ligament. 2. A fibrous cord running from the umbilicus to the notch in the anterior border of the liver; represents the remains of the obliterated umbilical vein. { 'raūnd 'līgəmənt }

roundness [GEOL] The degree of abrasion of sedimentary particles; expressed as the radius of the average radius of curvature of the edges or corners to the radius of curvature of the maximum inscribed sphere. { 'raūndnəs }

roundnose chisel [DES ENG] A chisel having a rounded cutting edge. { 'raūndnōs 'chizəl }

roundnose tool [DES ENG] A large-radius-nose cutting tool generally used in finishing operations. { 'raūndnōs 'tül }.

round of beam [NAV ARCH] The arch or slope from side to side of a vessel's weather deck for water drainage. Also known as camber. { 'raūnd əv 'bēm }.

round of bearings [NAV] A group of bearings observed simultaneously, or over a short period of time with no appreciable delay between the completion of one observation and the start of the next. { 'raūnd əv 'berigz }

round off [MATH] To truncate the least significant digit or digits of a numeral, and adjust the remaining numeral to be as close as possible to the original number. { 'raūn,dof }

round-off error See rounding error. { 'raūn,dof ,erər }

round of sights [NAV] A group of celestial observations made with a sextant or other similar instrument over a short period of time, usually with no appreciable delay between the completion of one observation and the start of the next. { 'raūnd əv 'sits }

round-robin scheduling [COMPUT SCI] A scheduling algorithm which repeatedly runs through a list of users, giving each user the opportunity to use the central processing unit in succession. { 'raūnd 'rōbən 'skejən̄lɪŋ }

rounds complete [ORD] The term used to report that the number of rounds specified in fire for effect have been fired. { 'raūnz kəm'plēt }

roundstone [GEOL] Any naturally rounded rock fragment of any size larger than a sand grain (diameter greater than 2 millimeters), such as a boulder, cobble, pebble, or granule. { 'raūnd,ston }

round strand rope [DES ENG] A rope composed generally of six strands twisted together or laid to form the rope around a core of hemp, sisal, or manila, or, in a wire-cored rope, around a central strand composed of individual wires. { 'raūnd 'strand 'rōp }

round-the-world echo [COMMUN] A signal occurring every $\frac{1}{2}$ second when a radio wave repeatedly encircles the earth at its speed of 186,000 miles (300,000 kilometers) per second. { 'raūnd əf 'wərləd 'ekəz }

round trip [ENG] The combined operations of entering and leaving a hole during drilling operations. { 'raūnd 'trip }

round-tripechoes [ELECTROMAG] Multiple reflection echoes produced when a radar pulse is reflected from a target strongly enough so that the echo is reflected back to the target where it produces a second echo. { 'raūnd 'trip 'ekəz }

round wind [METEOROL] A wind that gradually changes direction through approximately 180° during the daylight hours. { 'raūnd 'wind }

round window [ANAT] A membrane-covered opening between the middle and inner ears in amphibians and mammals through which energy is dissipated after traveling in the membranous labyrinth. { 'raūnd 'windō }

roundworm [INV ZOO] The name applied to nematodes. { 'raūnd,worm }

Rous sarcoma [VET MED] A fibrosarcoma that can be produced in chickens, pheasants, and ducklings inoculated with the filterable, ribonucleic acid Rous virus. { 'raūs sär'kō-mə }

Rousseau diagram [OPTICS] A geometric construction used to determine the total luminous flux of a lamp from a number of polar diagrams which give the effective luminous intensity of the lamp in various directions. { 'raūs 'dīə,gram }

rout [MECH ENG] To gouge out, make a furrow, or otherwise machine a wood member. { raut }

route [NAV] The prescribed course to be traveled from a specific point of origin to a specific destination. { rüt or raut }

route chart [MAP] A chart showing routes between various places, usually with distances indicated. { 'rüt ,chārt }

route component [METEOROL] The average forecast wind component parallel to the flight path at flight level for an entire

rouvite

route; it is positive if helping (tailwind), and negative if retarding (headwind). { 'rüt kəm,pōnənt }

route forecast [METEOROL] An aviation weather forecast for one or more specified air routes. { 'rüt ,fōr,kast }

route locking [CIV ENG] Electrically locking in position switches, movable point frogs, or derails on the route of a train, after the train has passed a proceed signal. { 'rüt ,lāk-iŋ }

router [COMMUN] A device that selects an appropriate pathway for a message and routes the message accordingly. { DES ENG } 1. A chisel with a curved point for cleaning out features such as grooves and mortises on wood members. 2. See router plane. { MECH ENG } A machine tool with a rapidly rotating vertical spindle and cutter for making furrows, mortises, and similar grooves. { 'raūd-ər }

router plane [DES ENG] A plane for cutting grooves and smoothing the bottom of grooves. Also known as router. { 'raūd-ər ,plān }

route survey [CIV ENG] A survey for the design and construction of linear works, such as roads and pipelines. { 'rüt ,sər,vā }

Routh's procedure [MECH] A procedure for modifying the Lagrangian of a system so that the modified function satisfies a modified form of Lagrange's equations in which ignorable coordinates are eliminated. { 'rūths prə,sē,jər }

Routh's rule [MATH] The number of roots with positive real parts of an algebraic equation is equal to the number of changes of algebraic sign of a sequence whose terms are formed from coefficients of the equation in a specified manner. Also known as Routh test. { 'rūths ,rūl }

Routh's rule of inertia [MECH] The moment of inertia of a body about an axis of symmetry equals $M(a^2 + b^2)/n$, where M is the body's mass, a and b are the lengths of the body's two other perpendicular semiaxes, and n equals 3, 4, or 5 depending on whether the body is a rectangular parallelepiped, elliptic cylinder, or ellipsoid, respectively. { 'rūths 'rūl əv i'nərshə }

Routh table [MATH] An array of numbers each of which is formed from coefficients of an algebraic equation in a specified manner; the first row of this array constitutes the sequence used in Routh's rule. { 'rūth ,tā,bəl }

Routh test See Routh's rule. { 'rūth ,test }

routine [COMPUT SCI] A set of digital computer instructions designed and constructed so as to accomplish a specified function. { rūt'ēn }

routine ammunition maintenance [ORD] Maintenance operations not involving disassembly of ammunition or replacement of components, and comprising chiefly cleaning and protecting exterior surfaces of individual items, packages of ammunition, ammunition components, and explosives. { rūt'ēn ,am'yə'nishən ,māntənəns }

routine library [COMPUT SCI] Ordered set of standard and proven computer routines by which problems or parts of problems may be solved. { rūt'ēn ,lī,brerē }

routing [COMMUN] The assignment of a path by which a message will travel to its destination. [ENG] A manufacturing process in which wooden parts are fabricated in various configurations; in high-speed industrial applications, an overhead cutting tool drills into the workpiece and then cuts the desired interior shape. [GRAPHICS] In letterpress printing, the removal of the nonprinting areas of a plate. { 'rūd-iŋ }

routing indicator [COMMUN] 1. A group of letters, engineered and assigned, to identify a station within a digital communications network. 2. A group of letters assigned to indicate the geographic location of a station; a fixed headquarters of a command, activity, or unit at a geographic location; or the general location of a tape relay or tributary station to facilitate the routing of traffic over tape relay networks. { 'rūd-iŋ ,in'də,kād-ər }

routing message [COMMUN] The function performed at a central message processor of selecting the route, or alternate route required, by which a message will proceed to the next point in reaching its destination. { 'rūd-iŋ ,mes'iŋ }

rouvitite [GEOL] A fine-grained igneous rock containing orthoclase, plagioclase, quartz, and garnet. { 'rūd-ə,vā,rit }

rouvilitte [GEOL] A light-colored therelite composed predominantly of labradorite and nepheline, with small amounts of titanite, hornblende, pyrite, and apatite. { 'rūv-ə,līt }

rouvite [MINERAL] $\text{CaU}_2\text{V}_{12}\text{O}_{36} \cdot 2\text{H}_2\text{O}$ A purplish-to bluish-black mineral consisting of a hydrated vanadate of calcium and uranium; occurs as dense masses, crusts, and coatings. { 'rū,vīt }

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RPE See rota

RPG See rep

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